

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE TARIFF FILING OF SOUTH CENTRAL BELL)	
TELEPHONE COMPANY TO RESTRUCTURE ITS)	CASE NO. 10403
LIGHTGATE SERVICE TARIFF)	

O R D E R

On September 8, 1988, South Central Bell Telephone Company ("South Central Bell") filed a tariff with the Commission to restructure its LightGate Service. By Order dated October 11, 1988, the Commission suspended the tariff through March 11, 1989.

Several motions for intervention were filed and granted. The intervenors in this case are: AT&T Communications of the South Central States, Inc. ("AT&T"), the Attorney General of the Commonwealth of Kentucky ("AG"), and MCI Telecommunications Corporation ("MCI").

Both South Central Bell and AT&T submitted written testimony. A hearing was held on January 31, 1989. Oral testimony was presented by John F. Dorsch, Operations Manager in the Rates and Economics Department of South Central Bell, and by L. G. Sather, Staff Manager in the Marketing Plans Implementation Organization of AT&T.

On March 3, 1989, South Central Bell filed its responses to oral requests made at the hearing. With the information, South Central Bell filed a petition for confidential treatment of

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certain responses consisting of Question 2, Items 1 and 2 (attachments) and Question 13 (attachment). The Commission is of the opinion that the petition should be granted pursuant to 807 KAR 5:001, Section 7.

AT&T's position, as contained in Mr. Sather's testimony, is that the Commission should require South Central Bell to remove all resale restrictions from its digital private line tariffs. By so doing, AT&T believes that this would ensure that South Central Bell's digital private line offerings are available to all customers, including interexchange carriers, at equal costs and under identical terms and conditions. The Commission is of the opinion that the removal of resale restrictions would be premature in view of its investigation in Administrative Case No. 323.¹ Therefore, the Commission will not order that LightGate Services be made available for resale.

LightGate Service is an intraLATA² private line service, provided over guaranteed fiber optic facilities, and is designed to accommodate large customers with very large concentrations of channel services. There are two major types of LightGate Service. LightGate 1 systems provide basic 44.736 Mbps data transmission, which is roughly equivalent to DS3 service, and can be channelized into 28 DS1 channels. Each DS1 channel can be

¹ An Inquiry into IntraLATA Toll Competition, an Appropriate Compensation Scheme for Completion of IntraLATA Calls by Interexchange Carriers, and WATS Jurisdictionality.

² Local Access and Transport Area.

channelized into 24 DS0, or voice equivalent channels. Therefore, it is possible to obtain a total of 672 voice equivalent channels available with a LightGate 1 system and appropriate channel services. LightGate 2 systems have 3 times the capacity of LightGate 1 systems. LightGate 2 operates at 135 Mbps, which is equivalent to 3 DS3 channels. Depending upon the customer's requirements, DS3 and DS1 channels can be provided at the same time. The DS1 channels can be channelized into DS0 channels, making it possible to obtain a total of 2016 voice equivalent channels with a LightGate 2 system.

The LightGate Services tariff also includes Feature Activation Charges, enabling features such as exchange access, off-premises stations, tie-lines, and analog or digital data services to be added to activated channels. Rates for Feature Activations are identical to the rates in the MegaLink Channel Services tariff, which were recently investigated and approved in Case No. 10218.³

To support its tariff filing, South Central Bell provided a cost study based on incremental, forward-looking costs. This type of study considers only those costs which would change as a result of the decision to offer the service, and therefore, does not include allocations of joint or common costs which would be unaffected by this decision. South Central Bell is of the opinion that such allocations are inappropriate because

³ The Tariff Filing of South Central Bell Telephone Company to Establish MegaLink Channel Services.

"(a)rbitrarily allocated costs give no consideration to the benefit of adding a service, eliminating a service, or changing the price of an existing service."⁴ The Commission agrees that an incremental cost-of-service study is appropriate for determining the minimum price at which to offer a competitive service. However, joint or common costs must be recovered, and intuitively, the fairest way of recovering these costs is to allocate them to all services. As the proposed rates do recover incremental costs, as well as provide some contribution to joint or common costs, the Commission is of the opinion that the tariff should be approved. However, in future tariff filings which involve new or changed rates, the Commission will require South Central Bell to identify a fair allocation of common costs by providing a cost-of-service study based on fully allocated, embedded costs, including any new investments or expenses that will be required to provide the service. The Commission recognizes that it would not be practical in all situations to base rates on fully allocated costs. For instance, the Commission's policy objective of universal service requires that basic local service rates remain at affordable levels. As these rate levels are determined by residual pricing, the residual would be minimized if the contribution from other services was maximized. In other situations, a service may not be able to

⁴ South Central Bell's response to Item 3b of the Commission's January 6, 1989 Data Request.

compete at rates based on fully allocated costs, but nevertheless, it would be economically beneficial to provide the service as long as it recovered incremental costs and some portion of common costs. If this is the situation, market-based pricing would be appropriate provided that this pricing is supported by market demand studies as well as by an incremental cost study. This type of analysis will not generally be required, although it may be specifically requested, if South Central Bell's pricing is simply a reflection of the Commission's policy, such as the residual pricing of basic local service. Nothing contained herein should be construed to mean that the Commission is requiring South Central Bell to file rates based on any specific methodology, but instead provides direction as to the types of cost support expected in future tariff filings.

FINDINGS AND ORDERS

The Commission, having considered the evidence of record and being sufficiently advised, is of the opinion and finds that:

1. The petition for confidential treatment filed by South Central Bell on March 3, 1989 should be granted pursuant to 807 KAR 5:001, Section 7.

2. AT&T's request to require South Central Bell to remove all resale restrictions from its digital private line tariffs should be denied.

3. The proposed LightGate tariff should be approved.

4. Future tariff filings, as described in this Order, should be supported by fully allocated, embedded cost-of-service studies.

5. Market-based pricing should be supported by market demand studies as well as by incremental cost-of service studies, as described in this Order.

6. Within 30 days from the date of this Order, South Central Bell should file revised tariff pages consistent with the terms and conditions, and rates and charges specified in Appendix A, attached and incorporated hereto.

IT IS THEREFORE ORDERED that:

1. The petition for confidential treatment filed by South Central Bell on March 3, 1989 be and hereby is granted.


2. AT&T's request to require South Central Bell to remove all resale restrictions from its digital private line tariffs be and hereby is denied.

3. The proposed LightGate tariff be and hereby is approved.

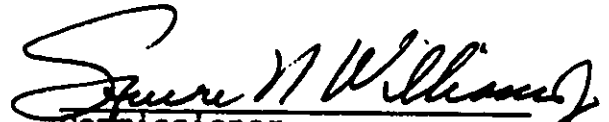
4. Within 30 days from the date of this Order, South Central Bell shall file revised tariff pages consistent with the terms and conditions, and rates and charges specified in Appendix A.

Done at Frankfort, Kentucky, this 10th day of April, 1989.

PUBLIC SERVICE COMMISSION


Chairman


Vice Chairman


Commissioner

ATTEST:

Executive Director

APPENDIX A

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 10403 DATED 4/10/89

The following rates and charges are prescribed for the customers in the area served by South Central Bell Telephone Company. All other rates and charges not specifically mentioned herein shall remain the same as those in effect under authority of this Commission prior to the effective date of this Order.

GENERAL SUBSCRIBER SERVICES TARIFF

A25. LIGHTGATE DIGITAL SERVICE

A125. OBSOLETE SERVICE OFFERINGS - LIGHTGATE DIGITAL SERVICE

A125.1 LightGate Multiline Local Exchange Service

(Obsoleted April 10, 1989, Type D).

Obsolete Service Offering. Not available for new installation, additions, transfers of service to a new location, or contract renewals.

Note: Service was initially available 90 days following the effective date of this Tariff. (Effective date of this Tariff was April 5, 1984.)

A125.1.1 General

- B. The customer may also choose not to channelize all or part of a LightGate package allowing direct connection to 1.544 Mb/s service as provided in the Private Line Services Tariff or for connection to unchannelized portions of other LightGate services. Lightgate Service is provided in packages based on multiples of circuit equivalents where DS1 or 24 equivalent circuits is the basic increment. For the technical description of DS1 and equipment capability, reference BellSouth Services technical publication No. 73501. This publication is available from BellSouth Documentation Operations, 9th Floor, 2121 8th Avenue North, Birmingham, Alabama 35203.
- C. These packages are distance sensitive as specified in A125.1.3 and all of the circuits in a customer's package must originate at the same premises; therefore, a package cannot be split between premises.

- D. Lines may be activated for Exchange Network Access only on a Volume Usage Measured Rate Service basis as specified in A125.1.2.

A125.1.2 Application Of Rates

- A. The statewide monthly rates as specified in A125.1.3 apply for each LightGate package according to the number of circuit equivalents in each package and the airline distance between the served location and the serving wire center. These rates apply per package regardless of the number of circuit equivalents within each package that are activated by the customer.
- C. The rates specified in other tariff sections for services such as Grouping Service, Touch-Tone, Custom Calling Service, etc., are in addition to the monthly rate per LightGate package and other applicable rates as found in A125.1.3. Also, the rates for other services that may be interconnected or extended beyond the basic LightGate Service, such as, OPX, Tie-Lines, Private Lines, DDS, FX, etc., are in addition to the rates specified in this Tariff.
- D. The standard transmission provided by LightGate is digital. As an option, LightGate may be provided for connection to the customer's premises equipment on an analog basis at the rates shown in A125.1.3. These rates are in addition to charges for the basic system.
- G. A Service Cancellation Fee is applicable at the date of termination and is reduced by $1/36$, $1/60$, or $1/84$ per month from the date of installation, respective to the choice of rate periods. This fee will be equal to 36, 60, or 84 times the monthly rate of the appropriate Basic System and/or Basic Channelization without activation at the time service is established. This fee does not apply when the customer renegotiates a new contract converting to a MegaLink Channel Service or a LightGate I or LightGate 2 System of equal or greater capacity, at the same location for a period of time greater than the time remaining on the existing contract. Nonrecurring charges for the new system will be determined on an individual case basis in accordance with the difference between the existing and new system sizes.

A125.1.3 Monthly Rates

C. Feature Activation

1. Digital

a. Serving Wire Center

- (1) Line, Trunk, OPX, Tie-Line, DDS, FX, WATS Line
2.4 Kb/s, 4.8 Kb/s, 9.6 Kb/s (requires one (1)
voice equivalent per feature).

2. Analog

a. Serving Wire Center

- (2) For Network Access Trunk, OPX, Tie-Line, DDS,
FX, WATS Line
2.4 Kb/s, 4.8 Kb/s, 9.6 Kb/s (requires two (2)
voice equivalent for each).

b. Customer Premises

- (2) For Network Access Trunk, OPX, Tie-Line, DDS,
FX, WATS Line
2.4 Kb/s, 4.8 Kb/s, 9.6 Kb/s, (requires two (2)
voice equivalents for each).

PRIVATE LINE SERVICES TARIFF

B7. DIGITAL NETWORK SERVICE

B7.4 LightGate Service

B7.4.1 General

- A. LightGate Service is an intraLATA fiber optic based, digital service which provides channelization capability for the customer in the Company's central office and/or customer premises location. LightGate Service is provided in packages based on systems with DS3 (44.736 Mbps.), DS1 (1.544 Mbps.), and/or multiple voice grade channel equivalents. It will provide local channels and/or interoffice channels for network access, Foreign Exchange, ESSX service station lines, off-premises stations, tie lines, WATS lines, analog data channels, and digital data services (at 2.4, 4.8, 9.6, 56 Kbps., 1.544 Mbps., and 44.736 Mbps. data rates).
- B. Channelization is provided by LightGate 1 and 2 Systems and D type channel banks which are offered in various system capacities. LightGate 1 and 2 Systems furnish fiber optic transport from the central office to a customer's premises featuring digital 1.544 Mbps. (DS1) and/or 44.736 Mbps. (DS3) channels as appropriate. Individual channel services are encoded in these high capacity channels and may be provided as individual services again by utilizing D type channelization systems and associated feature activation equipment. The customer may channelize all or part of a LightGate service package to activate voice and data facilities for interconnection with the switched network,

voice grade and data facilities for private line channels, as well as other LightGate services. The customer may also choose not to channelize all or part of a LightGate service package allowing direct connection to other DS3 or DS1 services as provided in the Private Line Services Tariff or the General Subscriber Services Tariff. 24 voice grade channels may be multiplexed on a DS1 signal, except as provided for in B7.4.1.H and M following.

- C. This service is available within a LATA from wire centers where appropriate digital facilities are available as determined by the Company. Service inquiries will be necessary to determine availability.
- D. Network access is provided on a volume usage measured rate basis for those customers subscribing to LightGate Service. The charges in A25.2 of the General Subscriber Services Tariff for Volume Usage Measured Rate Service are applicable only on those lines, trunks, or Network Access Registers activated for local network access.
- E. All LightGate services in a customer's package must be channelized in a single equipment location on a customer's premises, i.e., a package cannot be split between premises, or multiple locations within a premises. Standard network interfaces will be provided by the Company for analog and digital services consistent with existing practices for single channel services.
- F. Individual channels within a LightGate service package may be connected with service offered in other sections of the Private Line Services Tariff and the General Subscriber Services Tariff as appropriate. The regulations, rates and charges in this Tariff are applicable for the LightGate service component of the customer's end-to-end service. Single channel service components (non-LightGate service links) are subject to the regulations, rates and charges in their respective tariff sections.
- G. The customer may activate any number or combination of channels within a LightGate service package within the limitations set forth in B7.4.1.H following. Channels may be activated coincident with initial service or at any time subsequent to basic system installation. Once activated, a channel is subject to a minimum service period in accordance with the contract terms. Features (channels) activated under month-to-month rates will have a minimum service period of one month.
- H. The total number of voice grade equivalent channels activated by the customer may not exceed the capacity of the basic system. Additionally, there are some necessary restrictions in total system capacities where certain types of channel services are channelized. For example, some

channelizing equipment for SynchroNet Service and Dataphone Digital Service channels may require two voice equivalent channels per channel provided by the Company. This would reduce a system's stated capacity substantially. The Company will notify the customer when a system's capacity is affected.

- I. When the Company provides customer premises LightGate service channelization down to DS1 data rate level it is not necessary for the customer to provide Channel Service Units for associated 1.544 Mbps. channels.
- J. Central Office channelization generally provides analog to digital conversion to permit individual exchange services and private line channel services to be transported over digital high capacity facilities. In addition, this equipment permits connection to required testing facilities at designated hub or node locations for some digital offerings, such as SynchroNet Service. This channelization is also intended for use at Company or customer designated locations where different high capacity digital network links terminate in the same central office and must be converted to individual analog or digital channels before individual service links can be cross-connected. DS1 system capacities following are provided in groups of 24 voice grade equivalent channels and are subject to the limits as set forth in B7.4.1.H preceding. Each DS3 system has the capacity to provide 28 DS1 channels.
- K. Customer premises channelization generally provides analog to digital conversion at a customer's premises to provide individual switched services and private line services which are transported over digital high capacity facilities. Associated Feature Activation Equipment may also provide digital channels. Channelization also provides DS0, DS1 and DS3 digital private line services to a customer's premises. The termination of this channelization will be in a single equipment location in a customer's premises. The customer must provide suitable floor space, controlled environment, and a source of non-switched 120 volt, 60 Hz ac power to support this service. Emergency backup power capability is also available at an extra charge on an individual case basis.
- L. Channelization of DS3 (electrical) or lower data rates on a customer's premises may also be provided by the customer. Joint provisioning of channelized services introduces joint responsibilities between the customer and the Company.
 - 1. Responsibilities of the Company:
 - a. The Company will endeavor to activate its portion of joint service in a timely manner on the negotiated date to support installation requirements.

- b. The Company will provide the customer with information regarding the type and the manufacturer of central office channelization equipment to be used in each application.
- c. The Company will limit its selection of central office equipment to avoid operational and administrative difficulties associated with a multi-vendor central office environment.
- d. The Company reserves the right to change its equipment vendors should equipment availability, price or technological advantages make such a change attractive or necessary.
- e. The Company will notify the customer, generally a minimum of six months in advance, of any need to change its central office equipment to allow the customer sufficient time to respond, make any necessary changes, and schedule cooperative testing for cutover if required.
- f. Digital synchronization timing for LightGate Services will be provided by the Company.

2. Responsibilities of the Customer:

- a. The customer must be prepared to activate his portion of joint service in a timely manner on the negotiated date, providing testing equipment and personnel to support installation requirements, as may be necessary.
- b. The customer will be responsible for selecting his own equipment. Customer equipment must be compatible with the Company provided channelization at the central office.
- c. The customer must provide suitable power for his own equipment. Simplex powering will not be provided by the Company for a customer's Channel Service Units due to the serving arrangements associated with fiber optic facilities.

3. Trouble resolutions:

The Company will assist the customer in resolving any installation or day to day channel service problems. However, the Company does not assume responsibility for the compatibility or suitability of the customer's equipment. Dispatches to customer premises caused by customer equipment troubles will result in a Trouble Determination Charge to the customer, as provided in this Tariff.

- M. The technical specifications and standard network interfaces for DS3, DS1, and associated channelization are contained in BellSouth Technical Reference #73501. This publication is available from BellSouth Services, Documentation Operations, 9th Floor, 2121 8th Avenue North, Birmingham, Alabama 35203. Channelized DS1 service is available only with D4 channel bank equipment or compatible equivalent equipment.
- N. Emerging technology, such as low bit rate voice multiplexing techniques may permit additional quantities of individual channels to be channelized on a single DS1 signal. Equipment providing this capability does not generally assure compatibility between different manufacturers. Some equipment may not be suitable for data transmission or tandem network line application. Rates, charges, and availability of this equipment will be negotiated with the customer on an individual case basis.

B7.4.2 Application of Rates

- A. Monthly rates and charges as specified in B7.4.4 following apply for each LightGate service according to the number of voice grade equivalent channels in each package. These rates apply regardless of the number of circuit equivalents within each package that are actually activated by the customer at a point in time.
- B. Network access service is provided for channels within each LightGate service package on a Volume Usage Measured Rate at the monthly recurring rates and charges as specified in A25.2 and apply for each channel within a package that is activated for network access. In addition, all applicable regulations, rates and charges specified in the General Subscriber Services Tariff will apply, unless otherwise stated herein.
- C. Rates and charges specified in other tariff sections for services such as Touch-Tone, Custom Calling Service, Grouping Service, etc., are in addition to the monthly rate for LightGate services. Also, the rates and charges for the other services that may be interconnected or extended beyond the basic LightGate Service, such as off-premises stations, tie lines, Foreign Exchange Service, private lines, etc., are in addition to the rates specified in this Tariff for those portions of channel services necessary to provide end-to-end service. Rates and charges for single DS1/1.544 Mbps. channels used to extend LightGate services when used as part of the same communications system will be as specified in B7.1 of this Tariff.
- D. All usual and applicable Installation Charges and/or Nonrecurring Charges as specified in other tariffs apply to the activation, move or change of channel equivalents within

LightGate service packages as well as for installation of the basic system. Suspension of service is not permitted with LightGate Service.

- E. LightGate 1 or 2 Systems are available under contract only for rate periods of 36 months, 60 months, or 84 months under conditions specified in B2.4, except as modified following. Contract rate increases are subject to the stipulations of B7.4.2.F following. All elements of a contract will expire at the same time (be coterminous).
 - 1. LightGate 1 or 2 Systems and associated Channelization Capacity are available only under contract as specified preceding.
 - 2. Feature Activation charges are available under contract or on a month-to-month basis at the customer's option.
 - 3. Individual network access service and private line channel services that are connected to LightGate Service are not offered under LightGate Service contract provisions. They are subject to their standard tariff provisions as appropriate.
- F. LightGate Service rates under contract will not be increased by Company initiative until the contract period expires. Those monthly rates for LightGate 1 or 2 System, Channelization Capacity, facility mileage, and Feature Activation in effect at the time the service is installed and when the Company is notified in writing of the subscriber's choice of payment period option will be applicable until the contract expires. At the expiration date of the customer's payment period option, the customer may select a new payment period option at current contract rates or revert to current rates on a month-to-month basis.
- G. A Termination Liability Charge is applicable at the date of termination and is reduced by 1/36, 1/60, or 1/84 month of service to the customer from the date of installation. This factor is dependent on the contract period subscribed to. The Termination Liability Charge basis will be equal to 36, 60, or 84 times the monthly rates for the LightGate 1 or 2 System, Channelization Capacity, facility mileage, and Feature Activation which are provided under contract, and are subject to the exemptions of B7.4.2.G.1 and 2 following.
 - 1. No Termination Liability Charge will be applicable for the LightGate 1 or 2 System or Channelization Capacity when the customer renegotiates a new contract for the same system at the same location(s) for a period of time greater than the time remaining on the existing contract, subject to contract periods contained in B7.4.2.E preceding.

2. The Termination Liability Charge basis for Feature Activation (central office and/or customer premises specific channel services plug-in equipment) will be 50 percent of the total monthly rate for the activated features (specific channel units) under contract which are being disconnected. All features activated under contract are coterminous with the basic system with which they are associated. Any features subscribed to on a month-to-month basis have a minimum service period of one month and no associated Termination Liability Charge.

- H. Transfer of service responsibility between customers is permitted subject to payment of a Transfer Charge as specified in B7.4.4.E.

B7.4.3 Digital Architecture and Definitions

A. Digital Architecture

1. LightGate services differ in provisioning method and numbering format from single channel services. These services will be available from the Company on a link (partial channel) basis rather than as an end-to-end service. This architecture is intended to promote more efficient connectivity of analog and digital networks in the future.

Both analog and digital channels are offered by the Company. Where traditional analog voice grade signals are provided to a customer at his premises, comparable performance specifications to Series 2100 (or 2000) Channel Services will be provided, as contained in the Private Line Services Tariff or the General Subscriber Services Tariff.

Many LightGate service channels will be available on a digital basis at the network interface on a customer's premises. Traditional analog services, like tie lines, off-premises stations, and PBX trunks can be provided on a digital basis to a customer's premises by the Company when a customer desires them encoded in a DS1 bit stream. Under those conditions, they will be provided as DS0 channels by the Company. Both the Company and the customer have joint responsibilities to ensure the proper transmission of the provided services. Normal analog channel network interface specifications will be superseded by the electrical specifications of the 1.544 Mbps. (DS1) channel which is actually terminated. Each DS0 channel provided will have identity only as a "time slot" within a DS1 channel. Compatible digital to analog conversion equipment must be provided by the

customer to derive the desired analog services. Any Channel Service Units necessary for digital services are the responsibility of the customer.

2. The following cross-reference is intended as a guide to digital terms which are used in this section.

<u>Transmission Data Rate</u>	<u>Equivalent Quantity of DS1 Ch.</u>	<u>Equivalent Quantity of DS3 Ch.</u>	<u>Equivalent Quantity of Voice Ch.</u>
1.544 Mbps.	1	-	24
44.736 Mbps.	28	1	672
90.524 Mbps.	56	2	1344
135.264 Mbps.	84	3	2016
274.176 Mbps.	168	6	4032

B. Definitions

Channel Service Unit

The term Channel Service Unit denotes network channel terminating equipment provided by the customer to terminate digital channel facilities on a customer's or user's premises.

DS0

The term DS0 denotes a channel service expressed in terms of its digitally encoded data bit rate in accordance with the North American hierarchy of digital signal levels. It is generally referred to as having a 64 Kbps. transmission bit rate signal; however, customer transmitted bit rates are limited to 56 Kbps. The required format and interface specifications are contained in BellSouth Technical Reference #73501.

DS1

The term DS1 denotes a channel service expressed in terms of its digitally encoded bit rate in accordance with the North American hierarchy of digital signal levels. It has a 1.544 Mbps. transmission data rate and provides for the two-way simultaneous transmission of isochronous timed, Bipolar Return-to-Zero bit stream format. Unframed signal formats are not permitted or compatible with Company equipment. The required format and interface specifications are contained in BellSouth Technical Reference #73501.

DS3

The term DS3 denotes a channel service expressed in terms of its digitally encoded bit rate in accordance with the North American hierarchy of digital signal levels. It has a

44.736 Mbps. transmission data rate and provides for two-way simultaneous transmission of randomized Non-Return-to-Zero signals with a B3ZS format. The required format and interface specifications are contained in BellSouth Technical Reference #73501.

LightGate 1

The term LightGate 1 denotes a service which provides extended service capability of DS3 data rates to the customer or multiplexed DS1 and DS0 channels based upon configurations desired. Appropriate electrical signals will be provided in accordance with the specifications of BellSouth Technical Reference #73501. The total capacity to be provided is a single 44.736 Mbps. transmission rate. This offering is intended to be a flexible, link connectable transport service for large customers with the capability of connecting with individual exchange and private line services, MegaLink Channel Service, and/or other LightGate services. Protection switching capability is also available.

LightGate 2

The term LightGate 2 denotes a service which provides extended service capability of multiples of DS3 data rates to the customer. Essentially, it provides three times the potential capacity of LightGate 1. The associated channelization equipment will permit combinations of DS3, DS1 and DS0 level services in a flexible building block structure. This service will also permit different levels of automatic protection switching capability dependent on customer desires. Appropriate electrical signals will be provided in accordance with the specifications of BellSouth Technical Reference #73501. This offering is intended to be a very, flexible link connectable transport service for the very large customer. It has the capability of connecting with individual exchange and private line services, MegaLink Channel Service, and/or other LightGate services.

B7.4.4 Rates and Charges

A. Basic LightGate Service

1. LightGate 1 System (One DS3 Capacity)

- a. Includes photonic common equipment and first one-half air mile of local channel fiber optic facilities. Additional specific interface equipment is required in the central office and customer premises, as contained in B7.4.4.A.1.a.(2) and (3) following. Mileage charges are as contained in B7.4.4.B following. Channelization for individual analog and digital services is contained in B7.4.4.C and D following.

(1) LightGate 1 Basic
System ¹

	<u>Non- recurring Charge</u>	<u>Month to Month</u>	<u>36 Months</u>	<u>60 Months</u>	<u>84 Months</u>
(a) Per System	\$3,000	\$2,880	\$2,500	\$2,380	\$2,250
(2) Electrical Interface Equipment - Central Office ¹					
(a) Per DS3 ²	\$550	\$ 86	\$ 66	\$ 66	\$ 66
(b) Per DS1 ³	\$150	\$ 14	\$ 10	\$ 10	\$ 10
(c) DS1 Automatic protection switching	\$ 50	\$ 36	\$ 32	\$ 32	\$ 32

3. Electrical Interface
Equipment - Customer
Premises ¹

(a) Per DS3 ²	\$550	\$ 98	\$ 75	\$ 75	\$ 75
(b) Per DS1 ³	\$250	\$ 17	\$ 13	\$ 13	\$ 13
(c) DS1 Automatic protection switching	\$ 50	\$ 40	\$ 36	\$ 36	\$ 36

Note 1: Month-to-month rates are only available at the end of a 36, 60, or 84 month contract.

Note 2: DS3 capability is provided where the customer does not desire channelization to DS1 or DS0 channel levels. This interface should not be provided where DS1 and DS0 level signals are provided at that system's termination point. However, if a DS3 signal is extended from the LightGate 1 System serving central office to a remote central office, a DS3/DS1 multiplexer may be ordered at the remote central office by a customer to derive DS1 channel levels at rates contained in B7.4.4.A.2.

Note 3: DS1 capability is only available in groups of 4 DS1s. When existing DS1 capacity is exhausted, the customer must request additional DS1 service in groups of 4 DS1 channels. Each DS1 can transport 24 DS0 channels.

2. LightGate 2 System (Three DS3 Capacity)

- a. Includes photonic common equipment and first one-half air mile of local channel fiber optic facilities. Additional specific interface equipment is required, as contained in

B7.4.4.A.2.a.(1)(b) following. Where channelization is desired to provide DS1 and DS0 channels, then a DS3/DS1 multiplexer must also be utilized in the center office and/or at a customer's premises, as contained in B7.4.4.A.2.a(2) and (3) following. Mileage charges are as contained in B7.4.4.B following. Channelization for individual analog and digital services is contained in B7.4.4.C and D following.

(1) LightGate 2 Basic System ¹

	<u>Non-recurring Charge</u>	<u>Month to Month</u>	<u>36 Months</u>	<u>60 Months</u>	<u>84 Months</u>
(a) Per System	\$3,000	\$4,080	\$3,550	\$3,400	\$3,250
(b) Per DS3 Electrical Interface ²	1,100	100	80	80	80
(c) Per DS3 Automatic protection switching ²	200	80	65	65	65
(2) DS3/DS1 Multiplexers - Central Office ¹					
(a) Per DS3/DS1 Multiplexer ^{3,4}	500	660	560	540	520
(b) Per DS1 Electrical Interface ⁵	150	14	10	10	10
(c) DS1 Automatic protection switching (one per DS3/DS1 multiplexer)	50	36	32	32	32
(3) DS3/DS1 Multiplexers - Customer Premises ¹					
(a) Per DS3/DS1 multiplexer ⁴	500	720	620	600	580
(b) Per DS1 Electrical Interface ⁵	250	17	13	13	13
(c) DS1 Automatic protection switching (one per DS3/DS1 multiplexer)	50	40	36	36	36

Note 1: Month-to-month rates are only available at the end of a 36, 60, or 84 month contract.

Note 2: This includes both central office and customer premises equipment. Each LightGate 2 System can support a maximum of three DS3 signals.

Note 3: This DS3/DS1 multiplexer is suitable for use separately with interoffice channel links as appropriate.

Note 4: Each DS3/DS1 multiplexer requires DS1 electrical interface equipment and can accommodate a maximum of 28 DS1 signals. Automatic protection switching of a DS3 electronic signal is included with the multiplexer.

Note 5: DS1 capability is only available in groups of 4 DS1s. When existing DS1 capacity is exhausted, the customer must request additional DS1 service in groups of 4 DS1 channels. Each DS1 can transport 24 DS0 channels.

B. Mileage Charges

1. Local Channels (for LightGate 1 and 2) ¹

	<u>Non-recurring Charge</u>	<u>Month to Month</u>	<u>36 Months</u>	<u>60 Months</u>	<u>84 Months</u>
(a) First one-half mile (Included in System Charge)	-	-	-	-	-
(b) Each additional one-half mile	-	450	395	375	355

2. Interoffice Channels ¹ (Automatic protection switching of DS3 data rates is assured in interoffice facilities.)

(a) Per DS3, first mile	650	2,240	1,950	1,850	1,750
(b) Per DS3, each additional mile	-	410	360	340	320

Note 1: Month-to-month rates are only available at the end of a 36, 60, or 84 month contract.

C. Channelization Capacity

The rates for a basic system without activated features for voice or data grade service are as follows:

1. Central Office ¹

	<u>Non-recurring Charge</u>	<u>Month to Month</u>	<u>36 Months</u>	<u>60 Months</u>	<u>84 Months</u>
(a) 24 Voice Equivalent Channels	\$ 750	\$ 290	\$ 240	\$ 230	\$ 220
(b) 48 Voice Equivalent Channels	1,000	540	450	430	410
(c) 96 Voice Equivalent Channels	1,500	1,030	860	820	780
(d) 144 Voice Equivalent Channels	2,000	1,500	1,250	1,190	1,130
(e) 192 Voice Equivalent Channels	2,400	1,940	1,620	1,540	1,460
(f) 240 Voice Equivalent Channels	2,800	2,370	1,990	1,890	1,790
(g) 288 Voice Equivalent Channels	3,200	2,830	2,380	2,260	2,140
(h) 384 Voice Equivalent Channels	3,700	3,730	3,140	2,980	2,820
(i) 480 Voice Equivalent Channels	4,200	4,590	3,890	3,700	3,510
(j) 576 Voice Equivalent Channels	4,700	5,420	4,630	4,400	4,170
(k) 672 Voice Equivalent Channels	4,900	6,190	5,290	5,030	4,770
(l) 1344 Voice Equivalent Channels	9,000	11,980	10,420	9,900	9,380
(m) 2016 Voice Equivalent Channels	13,800	17,940	15,600	14,820	14,040

Note 1: Month-to-month rates are only available at the end of a 36, 60, or 84 month contract.

2. Customer Premises ¹

1. Central Office ¹

	<u>Non-recurring Charge</u>	<u>Month to Month</u>	<u>36 Months</u>	<u>60 Months</u>	<u>84 Months</u>
(a) 24 Voice Equivalent Channels	\$ 750	\$ 380	\$ 320	\$ 310	\$ 300
(b) 48 Voice Equivalent Channels	1,000	410	340	330	320
(c) 96 Voice Equivalent Channels	1,500	620	520	500	480
(d) 144 Voice Equivalent Channels	2,000	880	730	700	670
(e) 192 Voice Equivalent Channels	2,400	1,150	960	920	880

	<u>Non-recurring Charge</u>	<u>Month to Month</u>	<u>36 Months</u>	<u>60 Months</u>	<u>84 Months</u>
(f) 240 Voice Equivalent Channels	2,800	1,420	1,190	1,140	1,090
(g) 288 Voice Equivalent Channels	3,200	1,650	1,390	1,330	1,270
(h) 384 Voice Equivalent Channels	3,700	2,150	1,810	1,730	1,650
(i) 480 Voice Equivalent Channels	4,200	2,600	2,200	2,110	2,020
(j) 576 Voice Equivalent Channels	4,700	3,050	2,610	2,500	2,390
(k) 672 Voice Equivalent Channels	4,900	3,560	3,040	2,910	2,780
(l) 1344 Voice Equivalent Channels	9,000	6,840	5,950	5,680	5,410
(m) 2016 Voice Equivalent Channels	13,800	10,270	8,930	8,530	8,130

Note 1: Month-to-month rates are only available at the end of a 36, 60, or 84 month contract.

D. Feature Activation

1. Central Office

a. Analog Voice Service

(1) For Exchange Line, Trunk or ESSX service station line use

	<u>Nonrecurring Charge Each</u>		<u>Month to Month</u>	<u>36, 60, or 84 Months Contract</u>
	<u>First</u>	<u>Additional</u>		
(a) Per feature activated 1,2,3	\$191	\$65	\$7.00	\$5.50

(2) For Foreign Exchange, WATS Line, Off Premises Station, or Voice Private Line use

(a) Per feature activated 1,2,3	272	95	9.00	7.00
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(3) For Tie Line use

(a) Per feature activated 1,2,3	285	105	11.00	9.00
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	Nonrecurring Charge Each		Month to	36, 60, or 84 Months Contract
	<u>First</u>	<u>Additional</u>	<u>Month</u>	

b. Analog Data Service

(1) For data transmission
use

(a) Per feature activated 1,2,3	331	105	11.00	9.00
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c. Digital Data Service

(1) For 2.4 Kpbs., 4.8
Kpbs., or 9.6 Kpbs.
data rates

(a) Per feature activated 1,2,3	331	105	18.00	16.00
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(2) For 56 Kbps. data
rates

(a) Per feature activated 1,2,4	471	150	23.00	21.00
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Note 1: The first nonrecurring charge is applicable to the first channel activated of a particular type at the same premises or central office location. It is also applicable to a first channel of that type which is installed at a later time, or different premises or central office location.

Note 2: Each additional nonrecurring charge is applicable to each additional channel activated of the same type, at the same premises or central office, and at the same time.

Note 3: Represents 1 (one) voice equivalent channel per feature activated.

Note 4: Represents 2 (two) voice equivalent channels per feature activated.

2. Customer Premises

a. Analog Voice Service

(1) For Exchange Line, Trunk or ESSX service station line use

	Nonrecurring Charge Each		Month to	36, 60, or 84 Months Contract
	<u>First</u>	<u>Additional</u>	<u>Month</u>	
(a) Per feature activated 1,2,3	\$242	\$95	\$10.00	\$7.00

(2) For Foreign Exchange,
WATS Line, Off
Premises Station, or
Voice Private Line
use

(a) Per feature activated 1,2,3	308	130	11.00	8.00
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(3) For Tie Line use

(a) Per feature activated 1,2,3	324	140	15.00	13.00
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b. Analog Data Service

(1) For data transmission
use

(a) Per feature activated 1,2,3	430	155	20.00	18.00
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c. Digital Data Service

(1) For 2.4 Kpbs., 4.8
Kpbs., or 9.6 Kpbs.
data rates

(a) Per feature activated 1,2,3	430	155	37.00	35.00
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(2) For 56 Kbps. data
rates

(a) Per feature activated 1,2,4	433	195	42.00	40.00
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Note 1: The first nonrecurring charge is applicable to the first channel activated of a particular type at the same premises or central office location. It is also applicable to a first channel of that type which is installed at a later time, or different premises or central office location.

Note 2: Each additional nonrecurring charge is applicable to each additional channel activated or the same type, at the same premises or central office, and at the same time.

Note 3: Represents 1 (one) voice equivalent channel per feature activated.

Note 4: Represents 2 (two) voice equivalent channels per feature activated.

E. Transfer Charges

1. Transfer Between Customers

	<u>Nonrecurring Charge</u>
(a) Per transfer	\$352

F. Switching Arrangements, multipoint/multistation Bridging and Data Conditioning rates.

Rates and charges are those that would be applicable to single channel services.

G. Signaling Arrangements

Rates and charges for single channels, as contained in A13.1 of the General Subscriber Services Tariff and Section B3 of this Tariff, are not applicable to local channel and interoffice link segments that are channelized under the LightGate service offering. However, rates and charges for automatic ringdown (20 Hz.) signaling, as contained in Section B4 of this Tariff, are applicable when this is desired by the customer.

H. Network Access Service

Applicable regulations and rates for access to the exchange network are in A25.2 of the General Subscriber Services Tariff.

I. Route Diversity

Customer rates and charges for physical route diversity will be negotiated on an individual case basis.